AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for selecting an eye image from a set of digital images based on its definition, the method comprising ~~, for each image in the set~~:

calculating a first approximate characteristic definition score based on a cumulating of the gradients in a single direction of [[the]] light intensities of pixels of [[the]] an image ~~pixels~~ ;

selecting a subset of images for which said first score is greater than a predetermined threshold; and

for each ~~of the~~ image[[s]] of ~~said~~ the subset of images, calculating a second ~~score~~ characteristic definition score ~~of the image definition~~ by an evaluation method ~~comprising the successive steps of~~ including:

approximately ~~localizing the~~ locating a pupil in the image;

defining, from the approximate ~~position~~ location of the pupil, an examination window centered on ~~this position~~ the approximate location; and

applying a gradient accumulation operation to [[the]] luminance values of [[the]] pixels of the examination window, ~~the running~~ an accumulating total being proportional to the second characteristic definition score of the image.

2. (Currently Amended) The method of claim 1, wherein the examination window has an elongated shape~~, preferably, rectangular~~.

3. (Currently Amended) The method of claim 2, wherein the smallest dimension of ~~said~~ the examination window approximately corresponds to [[the]] an average diameter expected for the pupil.

4. (Currently Amended) The method of claim 1, wherein the largest dimension of ~~said~~ the examination window approximately corresponds to [[the]] an average diameter expected for [[the]] an iris.

5. (Currently Amended) The method of claim 1, wherein ~~the approximate localization~~

~~comprises the steps of~~ approximately locating a pupil in the image includes:

dividing the image into blocks of identical ~~dimensions~~ size, the size ~~of which~~ is chosen according to ~~the approximate~~ an expected approximate size of the pupil to be ~~localized~~ located;

calculating, for each block, the average luminance; and

searching ~~that of the~~ for a block[[s]] having the smallest luminance, [[the]] an approximate position of the pupil in the image corresponding to [[the]] a position of the block ~~of minimum~~ having the smallest luminance.

6. (Currently Amended) The method of claim 5, wherein dividing the image includes dividing the image into blocks which overlap one another, [[the]] and a pitch in ~~both~~ two directions between two ~~neighboring~~ overlapping blocks ~~ranging~~ ranges between one tenth and three quarters of the size of [[a]] the blocks.

7. (Currently Amended) The method of claim 5, wherein ~~the division~~ dividing the image into blocks is performed on a sub-sampled image of the digital image, [[the]] and a pitch between two neighboring blocks ~~depending~~ is dependent on the image sub-sampling ratio.

8. (Currently Amended) The method of claim 5, wherein ~~the localization~~ approximately locating a pupil in the image is applied to a digital image reduced in size with respect to the original image, the digital image represents the original image with ~~by eliminating~~ two lateral strips of predetermined width removed.

9. (Currently Amended) The method of claim 1, wherein ~~said operator~~ the gradient accumulation operation cumulates [[the]] a quadratic norm of horizontal and vertical gradients of luminance values of image pixels, the pixels ~~being~~ selected at least according to a first maximum luminance threshold of other pixels in the ~~involved~~ single direction.

10. (Currently Amended) The method of claim 9, wherein ~~said~~ the second characteristic definition score is obtained by dividing [[the]] a running total by ~~the~~ a number of cumulated

quadratic norms.

11. (Currently Amended) The method of claim 9, ~~comprising~~ further including:

selecting a current pixel having a vertical or horizontal gradient to be taken into account in the total only if [[the]] luminances of two pixels surrounding the current pixel while being distant therefrom by a predetermined interval in one of the ~~involved~~ vertical or horizontal directions are smaller than ~~said~~ the first luminance threshold, ~~said~~ the first threshold being selected according to [[the]] an expected luminosity of possible specular spots which are desired not to be taken into account, and ~~said~~ the interval being selected according to [[the]] an expected size of the possible specular spots.

12. (Currently Amended) The method of claim 9, wherein the quadratic norm of a gradient is taken into account in the total only if a value of that quadratic norm is smaller than a predetermined gradient threshold, the predetermined gradient threshold being selected according to ~~the image~~ a contrast of the image.

13. (Currently Amended) The method of claim 9, wherein a current pixel is selected to be taken into account in the total only if ~~its~~ a luminance of the current pixel is smaller than a second luminance threshold, the second luminance threshold being chosen to be greater than [[the]] an expected light intensity of [[the]] an iris in the image.

14. (Original) The method of claim 1, wherein the second score assigned to each image is used to select the clearest image from said set.

15. (Currently Amended) A digital image processing system, comprising:

means for calculating a first approximate characteristic definition score based on a cumulating of the gradients in a single direction of [[the]] light intensities of ~~the~~ pixels of an image ~~pixels~~;

means for selecting a subset of images for which ~~said~~ the first score is greater than a

predetermined threshold; and

means for ~~each of the images of said subset,~~ calculating a second score characteristic ~~of the image definition~~ for each image of the subset of images by an evaluation ~~method comprising the successive steps of~~ system including:

means for approximately ~~localizing the~~ locating a pupil in the image;

means for defining, from the approximate ~~position~~ location of the pupil, an examination window centered on ~~this position~~ the approximate location; and

means for applying a gradient accumulation operation to the luminance values of [[the]] pixels of the examination window, ~~the running~~ an accumulating total being proportional to the ~~definition~~ second score of the image.

16. (New) The method of claim 2, wherein the examination window has a substantially rectangular shape.

17. (New) A method of selecting an image from a set of images, the method comprising:

determining a first score for an image from a set of images, the first score representing an accumulation of gradients of light intensities of pixels of the image in a first direction;

determining a subset of images whereby each image in the subset of images has a first score greater than a predetermined threshold;

determining an approximate position of a pupil in the image;

defining an examination window based on the approximate position; and

applying a gradient accumulation operation to luminance values of pixels of the examination window to determine a second score of the image.

18. (New) The method of claim 17, wherein determining the approximate position of the pupil includes:

dividing the image into sections;

determining the average luminance of each section; and

identifying a section having a smallest luminance.

19. (New) The method of claim 18, wherein dividing the image into sections includes dividing the image into sections of substantially identical size, the size of the sections representing an approximate size of the pupil.

20. (New) The method of claim 17, wherein dividing the image into sections includes dividing the image into overlapping sections.